

REMARKS/ARGUMENTS

Claims 1-7 are active in this application. Applicants note that the Examiner has apparently based the present office action on claims 1-6 originally in the PCT application, but has failed to take into account the substitute pages 20 and 21 filed concurrently with the present application, which contain the claims as amended under Article 34 of the PCT. Accordingly, it is these claims 1-7 that are active in the present application and should be under consideration. A copy of these pages, along with the International Preliminary Report on Patentability to which they were attached in the original filing of the present case, is provided herewith for the Examiner's convenience.

The present invention relates to a process for the catalytic partial oxidation of liquid fuels, selected from low quality gas oils with a high content of aromatics and sulphur, together with gaseous fuels selected from refinery gases, natural gas, and/or LPG. The process comprises premixing and optionally heating to temperatures of 25-400C, reagents consisting of liquid hydrocarbons, gaseous hydrocarbons, oxygen (or air or oxygen enriched air), optionally in the presence of vapour and/or CO<sub>2</sub>, then reacting the mixture of reagents in a catalytic zone at inlet temperatures ranging from 50 to 500C and space velocities ranging from 1000 to 1,000,000 NI reagents/L cat x h, reaching temperatures at the outlet of the catalytic bed ranging from 450 to 1350C. Importantly, the present invention requires the use of a liquid feed having a high content of aromatics and sulphur, combined with a gaseous hydrocarbon feed.

Feely et al disclose a catalytic oxidation process which only uses a gaseous feed. This is even acknowledged by the Examiner at the paragraph bridging pages 2 and 3 of the Office action, which note that the feed is a gas mixture comprising an oxygen containing feed and a feed comprising one or more hydrocarbons. Further, Feely et al make no mention of using a feed that is a liquid feed having high aromatic and sulphur content. This is because it was

believed in the art that the use of such high sulphur content hydrocarbons caused deactivation of the kinds of catalysts being employed by Feely et al.

The present inventors have found, however, that by using a liquid hydrocarbon feed having high aromatic and sulphur contents, in combination with a gas hydrocarbon feed, one can obtain very good oxidation without deactivation of the catalysts.

This use of the combined liquid and gas feedstocks, with the liquid feedstock having high aromatic and sulphur contents, is nowhere disclosed or suggested by Feely et al. Accordingly, Feely et al cannot anticipate the present invention. Additionally, since one of ordinary skill in the art would not be led to use a combination of liquid and gaseous feedstocks, with the liquid feedstock having high aromatic and sulphur contents, Feely et al cannot render the present invention obvious, particularly in light of the understanding in the art which would have led to the conclusion that a high sulphur feedstock would deactivate the catalysts.

As such the rejection should be withdrawn.

The Examiner's objection to the specification has been obviated by the above amendments. The Brief Description of the Figures has been provided and is supported by the description of Figures 1 and 2 in the Examples section of the present application.

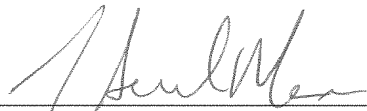
Application No. 10/571,538  
Reply to Office Action of May 17, 2007

Applicants submit that the application is now in condition for allowance and early notification of such action is earnestly solicited.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.

Norman F. Oblon



---

J. Derek Mason  
Attorney of Record  
Registration No. 35,270

Customer Number

**22850**

Tel: (703) 413-3000  
Fax: (703) 413 -2220  
(OSMMN 08/07)